



Australian Bureau of Statistics

6239.0 - Barriers and Incentives to Labour Force Participation, Australia, July 2012 to June 2013

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Summary

Main Features

NOTES

ABOUT THIS PUBLICATION

This publication presents information about people aged 18 years and over who are either not employed or who usually worked less than 35 hours per week. In respect of employed people, the Barriers and Incentives to Labour Force Participation topic collects data for those working less than 35 hours, as they have the greatest potential to increase their labour force participation. The data collected provides information on the potential labour force and the characteristics of that potential labour force. Data from this survey are used to obtain a better understanding of the factors that influence people to participate (more) in the labour force and the hours they work. By identifying the barriers that people face in joining the labour force or in working greater hours or in getting a job, a range of incentives to increase labour force participation and hours worked may then be identified.

The statistics in this publication were compiled from the Multipurpose Household Survey (MPHS), conducted throughout Australia during the 2012–13 financial year, as a supplement to the Australian Bureau of Statistics (ABS) monthly Labour Force Survey.

Information on the other topics collected in the 2012–13 MPHS can be found in paragraph 1 of the Explanatory Notes.

CHANGES IN THIS ISSUE

The scope of the 2012–13 survey was increased to include all employed people who were working less than 35 hours, in addition to those not employed. For previous surveys, only employed people who worked less than 16 hours were included in the survey.

The 2012–13 survey included questions on incentives to join or increase participation in the labour force. Some enhancements were made to these questions since they were last included in the 2008–09 survey.

For the 2012–13 survey, the new items satisfaction with current hours worked and satisfaction with current work arrangements were included and have been shown in this publication. Data is also available for the other new items: preferred number of hours per week for the unemployed and long-term health conditions.

NOTES ABOUT ESTIMATES

The MPHS is designed primarily to provide estimates at the Australia level. Broad estimates are also available for states and territories, although users should exercise caution when using estimates at this level, because of the presence of high sampling errors. For further information about the reliability of the estimates see paragraph 14 of the Explanatory Notes.

ROUNDING

As estimates have been rounded, discrepancies may occur between sums of the component items and totals.

INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Labour Market Statistics Section on Canberra (02) 6252 7206, email <labour.statistics@abs.gov.au>.

Conceptual Framework

CONCEPTUAL FRAMEWORK

OVERVIEW

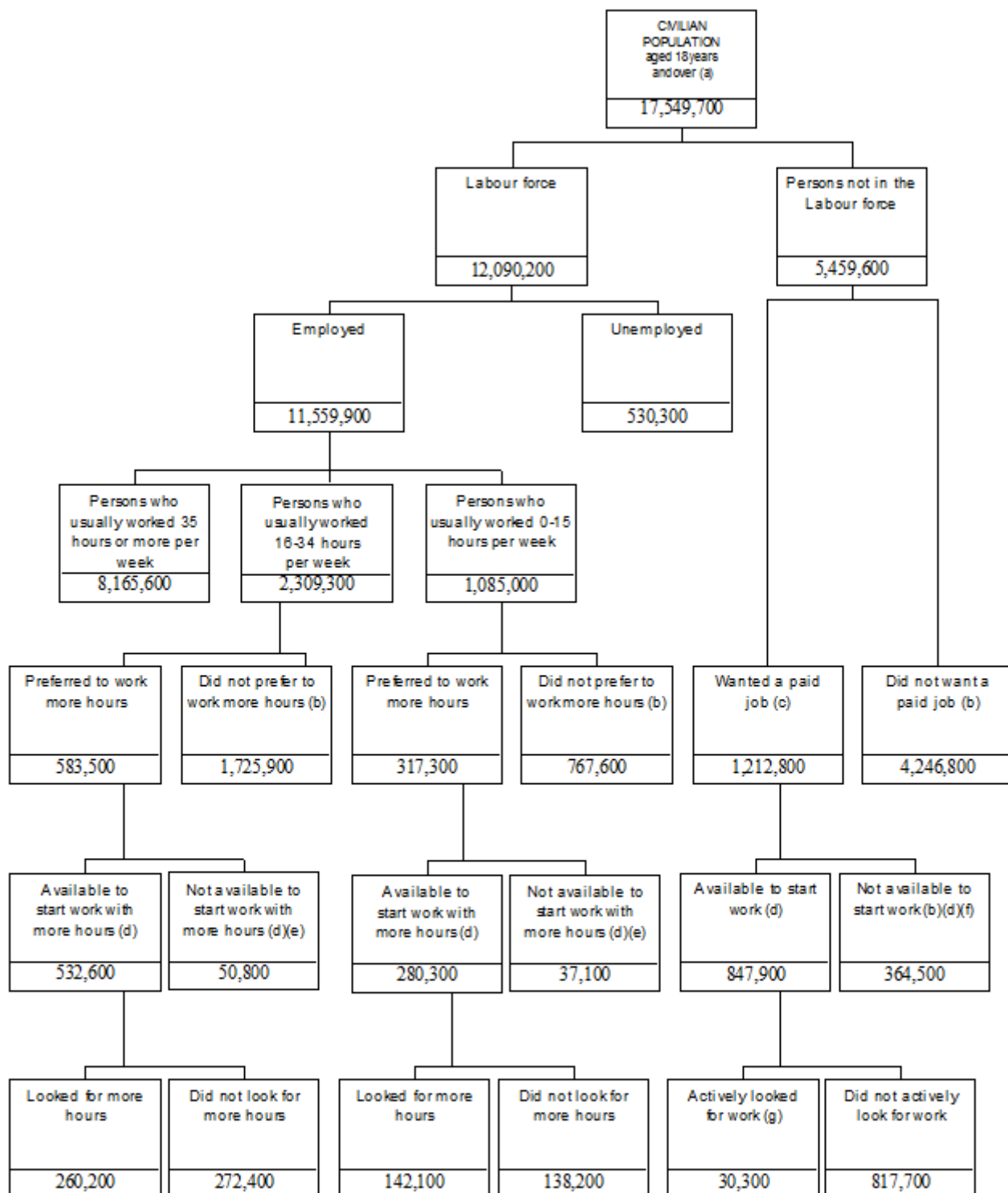
To understand potential barriers to increased labour force participation there are three groups of people who are of particular interest:

- unemployed;
- persons not in the labour force; and
- employed persons who usually worked less than 35 hours.

Persons not in the labour force includes people who wanted a paid job and those who did not want a paid job.

For employed persons who work less than 35 hours, it is important to ascertain whether they would like a different paid job with more hours or more hours in their current job.

The conceptual framework on the following page identifies these groups of people.



* estimate has a relative standard error of 25% to 50% and should be used with caution.

(a) For exclusions see paragraph 7 of the Explanatory Notes.

(b) Includes people who reported 'Did not know'.

(c) Includes people who reported 'Maybe/It depends'.

(d) Availability refers to reference week or within four weeks.

(e) These people reported they did not look for more hours.

(f) Of this group, 9,800* people actively looked for work and the remaining 354,800 people did not actively look for work.

(g) These people were not available to start work in the reference week so they are defined as not in the labour force rather than unemployed.

Summary of Findings

SUMMARY OF FINDINGS

OVERVIEW

The 2012–13 Multipurpose Household Survey (MPHS) revealed that of the 17.5 million people aged 18 years and over, there were 9.4 million people who did not work full-time. This group comprised people not in the labour force (5.5 million), unemployed people (530,300), people usually working fewer than 16 hours (1.1 million) and people who usually work 16–34 hours (2.3 million) (Table 1).

Of those 9.4 million people who did not work full-time, approximately 2.6 million (or 28%) indicated that they would like a job or to work more hours. This group comprised (Tables 1 and 16):

- 1.2 million (or 46%) people who wanted a paid job but were not in the labour force;
- 530,300 (or 20%) people who were unemployed;
- 317,300 (or 12%) people who usually worked 0–15 hours per week but wanted to work more hours; and
- 583,500 (or 22%) people who usually worked 16–34 hours per week but wanted to work more hours.

The remaining 6.7 million people (71%) of those people who did not work full-time:

- 4.2 million people (62%) did not want a paid job;
- 767,600 people (11%) worked 0–15 hours per week but did not want more hours; and
- 1.7 million people (25%) worked 16–34 hours per week but did not want to work more hours (Tables 1 and 16).

Estimates are based on data collected from July 2012 to June 2013.

HISTORICAL COMPARISON

The scope of the 2012–13 survey was expanded to include those who usually worked 16–34 hours per week. Previous surveys only included persons who were not in the labour force, unemployed or who usually worked 0–15 hours per week. Looking across the surveys from 2006–07 to 2012–13 this group has comprised around 40% of the population aged 18 years and over. Looking at this group more closely shows that (Table 1):

- of people who usually work fewer than 16 hours per week 29% preferred to work more hours, similar to previous years;
- of those people who want to work more hours the proportion who were available to work more hours was 45% in 2012–13, which was not statistically significant from previous years;
- the proportion of people not in the labour force who wanted a paid job was around 20% in each survey; and
- the proportion of people (aged 18 years and over) who were not in the labour force and did not want a paid job was approximately 24% in 2008–09, 2010–11 and 2012–13, but was 26% in 2006–07.

PEOPLE WHO WANTED A JOB OR MORE HOURS

There were 2.6 million people who wanted a job or preferred to work more hours. Determining whether these people are available to work or to work more hours, is important because those who are available have a greater potential to participate or increase their participation in the labour force than those who are not available.

Of the 2.6 million people who wanted a job or preferred more hours:

- 2.2 million people were available to start work within four weeks. Of these (Tables 1 and 16):
 - 1.2 million people were not looking for work or more hours; and
 - 962,900 people were looking for work or more hours.
- 452,400 people were not available to start work or work more hours within four weeks.

Women represented 60% of those who wanted a job or preferred more hours. This reflects the fact that more women are working less hours than wanted or not in the labour force than men (Table 1).

Available but not looking for a job or work with more hours

Of the 2.2 million people who wanted a job or more hours and were available to start work within four weeks, 1.2 million people (55%) indicated that they were not looking for a job or more hours. Two thirds of this group were women (797,600 or 65%) (Table 5).

'Caring for children' was a commonly reported main reason for not looking for work or more hours (175,900 people). Women comprised the majority of this group (90% or 158,400). For those people who cited 'caring for children' as their main reason for not looking for work or more hours, 64,900 people (37%) reported they 'preferred to look after children', while 37,800 people (21%) reported childcare 'cost/too expensive' (Table 5).

Another commonly reported main reason for not looking for work or more hours was 'studying/returning to studies' (12% or 146,900 people). Most people who reported this (80% or 117,800) were aged between 18 and 29 years, with 30% of this age group citing it as their main reason (Table 6).

PERSONS AVAILABLE BUT NOT LOOKING FOR A JOB OR WORK WITH MORE HOURS, Selected main reason for not looking for work/more hours, By sex, 2012–13



Available and looking for a job or work with more hours

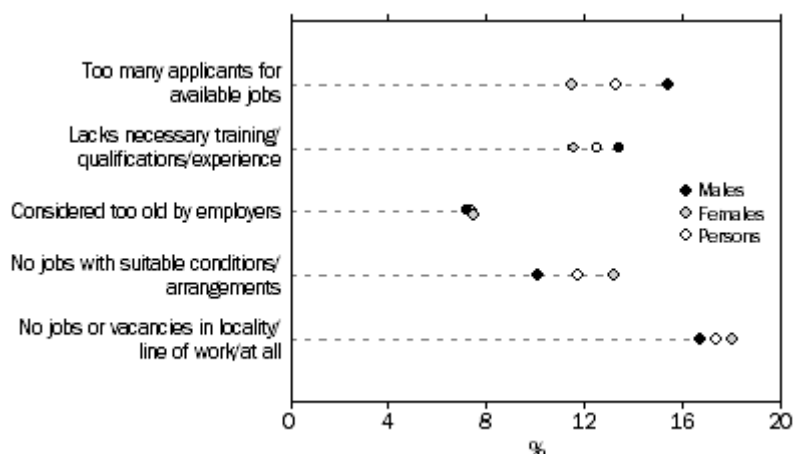
There were just under 1.0 million people who wanted a job or more hours, were available, and were looking for work or more hours, of whom (Tables 1, 7 and 16):

- just over half (53%) were women;
- 530,300 were unemployed (55%);
- 402,300 usually worked fewer than 35 hours (42%); and

- 30,300 were not in the labour force (3%) (these people are defined as not in the labour force rather than unemployed because they were not available to start work in the reference week, but were available to start within four weeks).

One of the main difficulties in finding a job or more work with more hours reported by people who were available and looking was 'no jobs or vacancies in locality or line of work or at all' (170,000 people or 18%). Just over half of those who reported this (55%) were women. 'Too many applicants for available jobs' was another commonly reported difficulty (129,700 people or 14%) (Table 7).

PERSONS AVAILABLE AND LOOKING FOR A JOB OR WORK WITH MORE HOURS, Selected main difficulty finding work/more hours, By sex, 2012–30

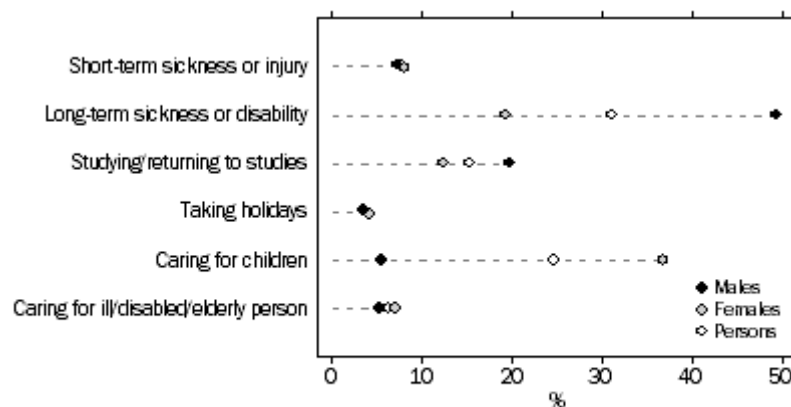


Not available to start a job or work with more hours

Men and women had different reasons for not being available to start work or more hours within four weeks. About 37% of the 276,500 women who wanted to start work or work more hours but were unavailable reported that 'caring for children' was the main reason for their unavailability. Another commonly reported main reason given by women for not being available was 'long-term sickness or disability' (19% or 53,800). Approximately 40% (or 110,500) of women who were not available to start work or more hours within four weeks reported that they would be available to start work or more hours within six months (Table 4).

Of the 175,900 men who wanted a job or more hours but were not available, approximately half reported that their main reason for unavailability was 'long-term sickness or disability' (50% or 87,100). Of the men not available to start work within four weeks, 32% reported that they would be available to start work or more hours within six months (Table 4).

PERSONS WHO WANTED A JOB OR WORK WITH MORE HOURS, BUT WERE NOT AVAILABLE(a), Selected main reason not available to start work/more hours, By sex, 2012–13



(a) Availability refers to the reference week or within four weeks.

Preferred weekly hours

Of the 1.2 million people not in the labour force who wanted a job, 76% reported that they would prefer to work part-time hours (69% of men and 80% of women). The average preferred number of hours was 28 hours (Table 8).

PEOPLE WHO DID NOT WANT TO WORK OR WORK MORE HOURS

Seventy two percent (or 6.7 million) of those who were not employed or who worked fewer than 35 hours indicated that they did not want work or to work more hours, respectively. This comprised (Tables 1 and 10):

- 4.2 million people (2.6 million women and 1.6 million men) who were not in the labour force;
- 767,600 people (538,300 women and 229,300 men) who usually worked fewer than 16 hours; and
- 1.7 million people (1.3 million women and 463,100 men) who usually worked 16 to 34 hours.

Of the 767,600 people who usually worked less than 15 hours per week (Tables 1 and 10):

- 365,500 people (105,500 males and 260,000 females) were 'very satisfied' with their current hours; and
- 389,400 people (103,900 males and 285,500 females) were 'very satisfied' with their current work arrangements.

Of the 1.7 million people who usually worked 16 to 34 hours per week (Tables 1 and 10):

- 912,500 people (207,200 males and 705,300 females) were 'very satisfied' with their current hours; and
- 860,500 people (206,400 males and 654,100 females) were 'very satisfied' with their current work arrangements.

People who were not in the labour force and did not want to work were generally older – 74% of them were aged 55 years and over. Women aged 55 years and over formed the largest single group, representing 43% of those who were not in the labour force and did not want to work, while men of that age represented 31%. Men in the younger age groups

represented only a small proportion of those not in the labour force who did not want to work – men aged 18–54 years formed just 7% of this group. In contrast, women aged 18–54 years formed 19% (Table 11).

Of the 4.2 million people not in the labour force who did not want to work, common main reasons for not wanting a job were (Table 11):

- 'permanently retired from full-time work/will not work full-time again' (33% or 1.4 million);
- 'no need/satisfied with current arrangements/retired from full-time work (for now)' (23% or 965,200); and
- 'long-term sickness or disability' (18% or 783,600).

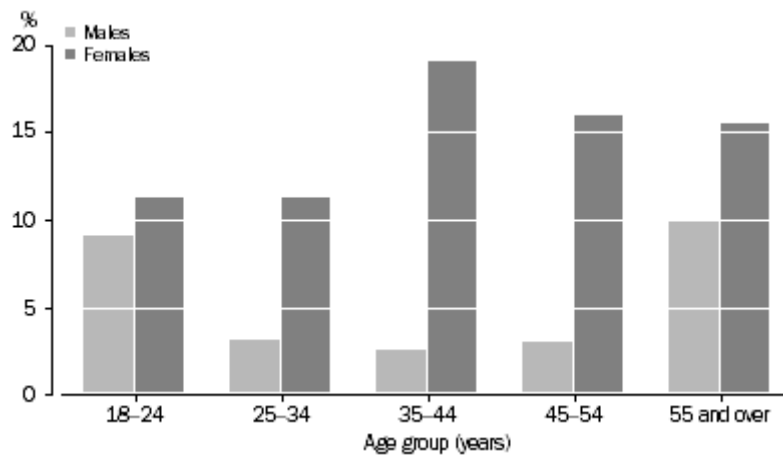
'Long-term sickness or disability' was reported by 23% of men (or 372,300), with almost three-quarters of these aged 55 years and over (72%). Eight percent of people (or 367,900) indicated the main reason that they did not want to work was due to 'caring for children'. Of the 18–29 years age group, 46% reported that 'studying or returning to studies' was the main reason they did not want to work (Table 11).

PERSONS NOT IN THE LABOUR FORCE WHO DID NOT WANT TO WORK, Selected main reason for not wanting work, By sex, 2012–13



Men and women who usually worked fewer than 35 hours and did not want more hours were relatively young – 56% of them were aged between 18 and 44 years. Women made up three-quarters (72%) of those who worked fewer than 35 hours and who did not want more work (Table 2).

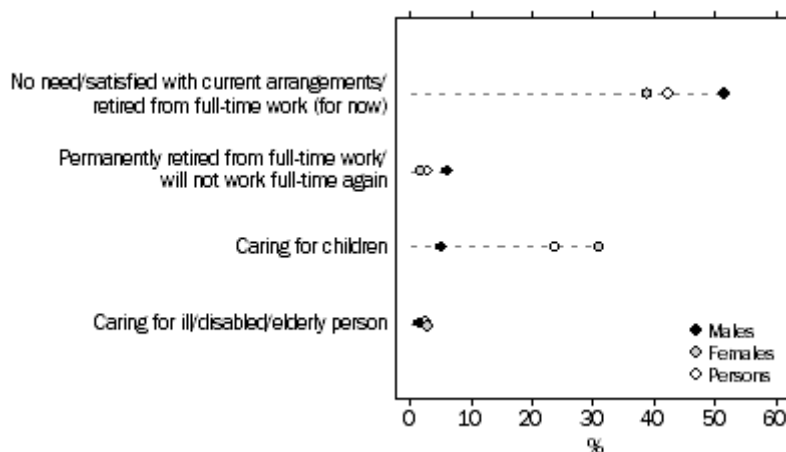
PERSONS WHO USUALLY WORKED FEWER THAN 35 HOURS AND DID NOT WANT TO WORK MORE, Age and sex distribution, 2012–13



The most commonly reported main reason that women who usually worked fewer than 35 hours gave for not wanting more hours was 'no need/satisfied with current arrangements/retired from full-time work (for now)' with 39% or 700,600 women giving this response. Another commonly reported reason was 'caring for children' (31% or 557,600 women gave this response). Just under half of women (48%) aged 30–54 years not wanting more hours (or 491,500 women) reported this as the main reason (Table 12).

There were 692,400 men who usually worked fewer than 35 hours and did not want more hours. The most commonly reported main reason given by 52% of these men for not wanting more hours was 'no need/satisfied with current arrangements/retired from full-time work (for now)' – almost half of this group was aged 55 years and over (Table 12).

PERSONS WHO USUALLY WORKED FEWER THAN 35 HOURS AND DID NOT WANT TO WORK MORE, Selected main reason for not wanting more hours, By sex, 2012–13



INCENTIVES TO JOIN/INCREASE PARTICIPATION IN THE LABOUR FORCE

Incentives to join the labour force or to increase participation was asked of people aged 18–75 years who were:

- not in the labour force, excluding those permanently unable to work and those permanently retired; or
- unemployed; or
- usually worked less than 35 hours.

A range of incentives that would encourage people to join or increase their participation in

the labour force was asked. Incentives have been grouped into the following categories:

- 'work related';
- 'skill related';
- 'finance related';
- 'childcare related';
- 'caring related'; and
- 'other incentives'.

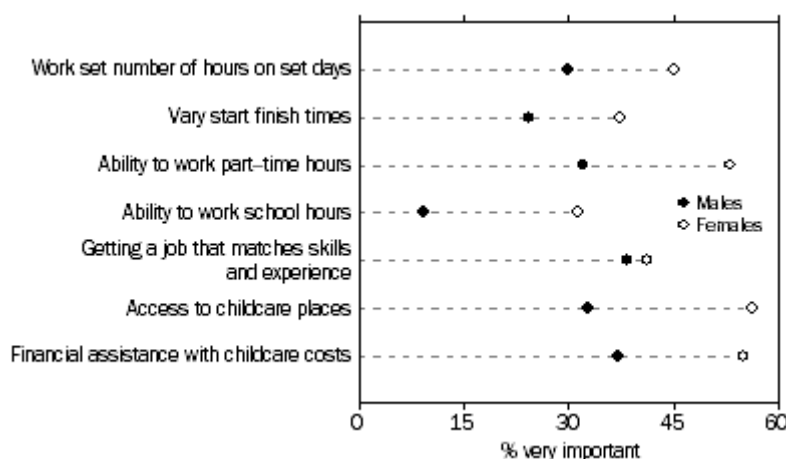
For work related incentives to increase participation in the labour force, 53% of women and 32% of men reported the 'ability to work part-time hours' as 'very important' (Table 13).

For skill related incentives, 40% of people reported 'getting a job that matches skills and experience' as 'very important' (41% of women and 38% of men). In contrast, 36% of people reported 'getting help with job search activities' as 'not important at all'. This was reported by 37% of females and 34% of males (Table 13).

Of people with children or who were caring for children, 53% reported the incentive that was 'very important' to them to join or increase participation in the labour force was 'access to childcare places', with 56% of women and 33% of men reporting this as 'very important'. A similar proportion reported 'financial assistance with childcare costs' as 'very important' (55% of women and 37% of men) (Table 13).

Females were generally more likely to report incentives as 'very important' than males.

SELECTED INCENTIVES TO JOIN/INCREASE PARTICIPATION IN THE LABOUR FORCE, By sex, 2012–13



For employed people, 61% reported the 'ability to work part-time hours' and 52% reported 'access to childcare places' as 'very important'. For unemployed people, 64% reported 'getting a job that matches skills and experience' and 60% reported 'financial assistance with childcare costs' as 'very important'. For persons not in the labour force, 55% reported 'financial assistance with childcare costs' as 'very important' (Table 14).

SELF ASSESSED HEALTH

For people who usually worked 0 to 34 hours per week, 2.4 million people (or 71%) rated their health as either excellent (1.1 million people) or very good (1.3 million people). Of these, 1.8 million people (74%) did not prefer to work more hours (Table 2).

The majority of people who were unemployed assessed their own health as either very good (213,700 people), good (137,100 people) or fair or poor (66,300 people) (Table 2).

People not in the labour force assessed their own health as either very good (1.6 million people), good (1.4 million people) or fair (1.1 million people). Of these, 3.2 million people (or 78%) did not want a paid job (Table 2).

About this Release

Provides information about people who are 18 years and over who are either not employed or usually work less than 35 hours. Data from this survey are used to obtain a better understanding of the factors that influence people to participate (more) in the labour force and the hours they work. Estimates can be cross-classified by demographics such as sex, age and country of birth, as well as labour force characteristics.

History of changes

This document was added or updated on 29/04/2016.

29/04/2016

This replacement content corrects errors in the data item Hours usually worked in current main job. This data item has been amended in both Table 9 of the publication and the associated datacube.

Explanatory Notes

Explanatory Notes

EXPLANATORY NOTES

INTRODUCTION

1 The statistics presented in this publication were compiled from data collected in the MPHS that was conducted throughout Australia in the 2012–13 financial year as a supplement to the ABS monthly LFS. The MPHS is designed to provide statistics annually for a small number of labour, social and economic topics. The topics collected in 2012–13 were:

- Barriers and Incentives to Labour Force Participation, Australia (cat. no. 6239.0)
- Retirement and Retirement Intentions, Australia (cat. no. 6238.0)
- Patient Experiences in Australia (cat. no. 4839.0)

- Family Characteristics and Transitions, Australia (cat. no. 4442.0)
- Household Use of Information Technology (cat. no. 8146.0)
- Crime Victimisation, Australia (cat. no. 4530.0)

2 For all topics, information on labour force characteristics, education, income and other demographics are also available.

3 The publication Labour Force, Australia (cat. no. 6202.0) contains information about survey design, sample redesign, scope, coverage and population benchmarks relevant to the monthly LFS, which also apply to the MPHS. It also contains definitions of demographic and labour force characteristics, and information about telephone interviewing which are relevant to both the monthly LFS and the MPHS.

CONCEPTS SOURCES AND METHODS

4 The conceptual framework used in Australia's LFS aligns closely with the standards and guidelines set out in Resolutions of the International Conference of Labour Statisticians. Descriptions of the underlying concepts and structure of Australia's labour force statistics, and the sources and methods used in compiling these estimates, are presented in Labour Statistics: Concepts, Sources and Methods (cat. no. 6102.0.55.001).

COLLECTION METHODOLOGY

5 ABS interviewers conducted interviews by either telephone or in person at selected dwellings during the 2012–13 financial year. Each month a sample of dwellings were selected for the MPHS from the responding households in the LFS. In these dwellings, after the LFS had been fully completed for each person, a usual resident aged 15 years and over was selected at random and asked the additional MPHS questions in a personal interview. Information was collected using Computer Assisted Interviewing (CAI), whereby responses are recorded directly onto an electronic questionnaire in a notebook computer.

SCOPE

6 The scope of the LFS is restricted to people aged 15 years and over and excludes the following people:

- members of the permanent defence forces;
- certain diplomatic personnel of overseas governments, customarily excluded from census and population estimates;
- overseas residents in Australia; and
- members of non-Australian defence forces (and their dependants).

7 In addition the 2012–13 MPHS excluded the following:

- people living in Indigenous communities in very remote parts of Australia; and
- people living in non-private dwellings such as hotels, university residences, students at boarding schools, patients in hospitals, inmates of prisons and residents of other institutions (e.g. retirement homes, homes for people with disabilities).

8 For the Barriers and Incentives to Labour Force Participation topic, the scope was further

restricted to people aged 18 years and over.

COVERAGE

9 In the LFS, coverage rules are applied which aim to ensure that each person is associated with only one dwelling and hence has only one chance of selection in the survey. See Labour Force, Australia (cat. no. 6202.0) for more details.

SAMPLE SIZE

10 The initial sample for the MPHS 2012–13 consisted of approximately 23,000 private dwellings. Of the 15,300 private dwellings that remained in the survey after sample loss (e.g. households with LFS non-response, no residents in scope for the LFS, vacant or derelict dwellings and dwellings under construction), approximately 78% were fully responding to the MPHS. The number of completed interviews obtained from these private dwellings (after taking into account scope, coverage and sub-sampling exclusions) was 8,200 for the Barriers and Incentives to Labour Force Participation survey.

ESTIMATION METHODS

11 Weighting is the process of adjusting results from a sample survey to infer results for the total in scope population. To do this, a 'weight' is allocated to each sample unit, which, for the MPHS, can either be a person or a household. The weight is a value which indicates how many population units are represented by the sample unit. The first step in calculating weights for each unit is to assign an initial weight, which is the inverse of the probability of being selected in the survey. The initial weights are then calibrated to align with independent estimates of the population of interest, referred to as 'benchmarks'. Weights are calibrated against population benchmarks to ensure that the survey estimates conform to the independently estimated distribution of the population rather than the distribution within the sample itself.

12 The 2012-13 survey was benchmarked to the projected civilian population aged 15 years and over, living in private dwellings in each state and territory. The process of weighting ensures that the survey estimates conform to person benchmarks by state, part of state, age and sex, and to household benchmarks by state, part of state and household composition. These benchmarks are produced from estimates of the resident population derived independently of the survey. The estimation procedure ensures estimates of persons calibrate exactly to independently produced population totals at broad levels. The known population totals are produced according to the scope of the survey. The same is true for estimates of households produced in this survey. However, in these cases the household benchmarks are actually estimates themselves as this population is not known.

13 This survey has been weighted using the latest estimates of the population, based on quarterly Estimated Resident Population. While Labour Force survey benchmarks are revised every 5 years, to take into account the outcome of the 5-yearly rebasing of the Estimated Resident Population following the latest Census, the supplementary surveys and multi-purpose household surveys (from which the statistics in this publication are taken) are not. Small differences will therefore exist between the civilian population aged 15 years and over reflected in the Labour Force survey and other labour household surveys estimates, as well as over time (eg. between the 2010-11 and 2012-13 Barriers and Incentives to Labour Force Participation surveys).

RELIABILITY OF THE ESTIMATES

14 Estimates in this publication are subject to sampling and non-sampling errors:

- Sampling error is the difference between the published estimate and the value that would have been produced if all dwellings had been included in the survey. For more information see the Technical Note.
- Non-sampling errors are inaccuracies that occur because of imperfections in reporting by respondents and interviewers and errors made in coding and processing data. These inaccuracies may occur in any enumeration, whether it be a full count or a sample. Every effort is made to reduce the non-sampling error to a minimum by careful design of questionnaires, intensive training and supervision of interviewers and effective processing procedures.

CLASSIFICATIONS USED

15 Country of birth data are classified according to the Standard Australian Classification of Countries (SACC), 2011 (cat. no. 1269.0).

16 Occupation data are classified according to the ANZSCO – Australian and New Zealand Standard Classification of Occupations, 2013, Version 1.2 (cat. no. 1220.0).

17 Industry data are classified according to the Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006 (Revision 2.0) (cat. no. 1292.0).

18 Educational attainment data are classified according to the Australian Standard Classification of Education (ASCED), 2001 (cat. no. 1272.0).

COMPARABILITY WITH MONTHLY LFS STATISTICS

19 Due to difference in the scope and sample size of the MPHS and that of LFS, the estimation procedure may lead to some variations between labour force estimates from this survey and those from LFS.

20 Changes to the LFS population benchmarks impact primarily on the magnitude of the Labour Force estimates (i.e. employment and unemployment) that are directly related to the underlying size of the population. For more details on population benchmarks used in the Labour Force Survey, see the Explanatory Notes in Labour Force, Australia (cat. no. 6202.0). See paragraph 13 for issues to note when comparing with estimates from 2012–13 with previous surveys.

PREVIOUS SURVEYS

21 The Barriers and Incentives to Labour Force Participation survey was last conducted in the 2010–11 financial year. Results of this survey were published in:

- Barriers and Incentives to Labour Force Participation, Australia, July 2010 to June 2011 (cat. no. 6239.0).

CHANGES IN THIS ISSUE

22 The following changes were made to the Barriers and Incentives to Labour Force Participation survey for the 2012–13 cycle:

- For the 2012–13 survey, the scope of the survey was changed to include employed people who were working less than 35 hours, in addition to those not employed. For previous surveys, only employed people who worked less than 16 hours were included in the survey;
- The 2012–13 survey included questions on incentives to join or increase participation in the labour force. Some enhancements were made to these questions since they were last included in the 2008–09 survey; and
- For the 2012–13 survey, the new items satisfaction with current hours worked and satisfaction with current work arrangements were included and have been shown in this publication. Data is also available for the other new items, preferred number of hours per week for the unemployed and long-term health conditions.

23 For a more detailed list of available data items and their categories – Barriers & Incentives to Labour Force Participation and Retirement & Retirement Intentions 2012–13 Data Items List, is available in an excel spreadsheet, on the ABS Website under the Downloads section.

NEXT SURVEY

24 The ABS plans to conduct this survey again during the 2014–15 financial year.

ACKNOWLEDGEMENT

25 ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated: without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the Census and Statistics Act 1905.

PRODUCTS AND SERVICES

Spreadsheets

26 An electronic version of the tables released in this publication is available on the ABS web site in spreadsheets attached to this publication. The spreadsheets present the tables and the related relative standard errors (RSEs) for each publication table.

RELATED PUBLICATIONS

27 ABS publications which may also be of interest include:

- Labour Force, Australia (cat. no. 6202.0);
- Persons Not in the Labour Force, Australia (cat. no. 6220.0);
- Underemployed Workers, Australia (cat. no. 6265.0);
- Job Search Experience, Australia (cat. no. 6222.0);

- Employment Arrangements, Retirement and Superannuation, Australia (cat. no. 6361.0);
- Australian Labour Market Statistics (cat. no. 6105.0); and
- Labour Statistics: Concepts, Sources and Methods (cat. no. 6102.0.55.001).

28 Current publications and other products released by the ABS are available from the Statistics Page on the ABS website. The ABS also issues a daily Release Advice on the website which details products to be released in the week ahead.

Glossary

GLOSSARY

Actively looking for work

People who were taking active steps to find work. Active steps comprise:

- writing, telephoning or applying to an employer for work;
- answering an advertisement for a job;
- checking noticeboards;
- being registered with centrelink as a jobseeker;
- checking or registering with any other employment agency;
- advertising or tendering for work; and
- contacting friends or relatives.

Available to start work

For people not in the labour force, those who were available to start work in the reference week or within four weeks.

Available to start work with more hours

Employed people who usually worked 0–34 hours per week in all jobs and were available to start work with more hours in the reference week or within four weeks.

Currently studying

People who were undertaking study for a trade certificate, diploma, degree or any other educational qualification at the time of the survey.

Did not prefer to work more hours

People who said 'no' or 'don't know' when asked 'would you prefer to work more hours than you usually work?'.

Did not want a paid job

People who were not classified as employed or unemployed who answered 'no' or 'don't know' when asked if they would like a paid job.

Duration of current main job/last job

Length of time worked in current main job/last job.

Employed

People who, during the reference week:

- worked for one hour or more for pay, profit, commission or payment in kind in a job or business, or on a farm (comprising employees, employers and own account workers); or
- worked for one hour or more without pay in a family business or on a farm (i.e. contributing family workers); or
- were employees who had a job but were not at work and were:
 - away from work for less than four weeks up to the end of the reference week; or
 - away from work for more than four weeks up to the end of the reference week and received pay for some or all of the four week period to the end of the reference week; or
 - away from work as a standard work or shift arrangement; or
 - on strike or locked out; or
 - on workers' compensation and expected to return to their job; or
- were employers or own account workers who had a job, business or farm, but were not at work.

Employees

People who work for a public or private employer and receive remuneration in wages, salary, a retainer fee from their employer while working on a commission basis, tips, piece rates, or payment in kind, or people who operate their own incorporated enterprise with or without hiring employees.

Employees (excluding OMIEs) with paid leave entitlements

Employees (excluding Owner Managers of Incorporated Enterprises) (OMIEs), who were entitled to either paid sick leave or paid holiday leave (or both).

Employees (excluding OMIEs) without paid leave entitlements

Employees (excluding OMIEs), who were not entitled to, or did not know whether they were entitled to, paid sick and paid holiday leave.

Employers

People who operate their own unincorporated economic enterprise or engage independently in a profession or trade and hire one or more employees.

Employment type

Classification of employed people according to the following employment type categories on the basis of their main job (i.e. the job in which they usually work the most hours):

Employees (excluding owner managers of incorporated enterprises)

- with paid leave entitlements
- without paid leave entitlements

Owner managers

- owner managers of incorporated enterprises
- owner managers of unincorporated enterprises

Contributing family workers

Family

Two or more people, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption, step or fostering; and who are usually resident in the same household. The basis of a family is formed by identifying the presence of a couple relationship, lone parent-child relationship or other blood relationship. Some households will, therefore, contain more than one family.

Full-time workers (usual)

Employed people who usually work 35 hours or more a week (in all jobs).

Future starters

People who were not employed during the reference week, were waiting to start a job within four weeks from the end of the reference week, and could have started in the reference week if the job had been available then.

Government pension/allowance

Income support payments from government to persons under social security and related government programs. Included are pensions and allowances received by aged, disabled, unemployed and sick persons, families and children, veterans and their survivors, and study allowances for students. Payments made by overseas governments as well as the Australian government are included.

Gross income

Regular and recurring cash receipts including monies received from wages and salaries, government pensions and allowances, and other regular receipts such as superannuation, workers' compensation, child support, scholarships, profit or loss from own unincorporated business or partnership, and property income. Gross income is the sum of current income from all these sources before income tax or the Medicare levy have been deducted.

Group jack-knife method

This method of calculating standard errors starts by dividing the survey sample into a number of approximately equal-sized groups (replicate groups). Replicate estimates of the population total are then calculated from the sample by excluding each replicate group in turn. The jack-knife variance is derived from the variation of the respective replicate estimates around the estimate based on the whole sample.

Had ever worked for two weeks or more

People who are not in the labour force or are unemployed and have previously worked for two weeks or more.

Had previously worked

People who are not in the labour force or are unemployed, who have previously worked for two weeks or more, less than 20 years ago.

Incorporated enterprise

An enterprise which is registered as a separate legal entity to its members or owners. Also known as a limited liability company.

Industry

An industry relates to a group of businesses or organisations that perform similar sets of activities in terms of the production of goods and services. In this publication, industry is classified according to the Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006 (cat. no. 1292.0).

Labour force

The civilian population can be split into two mutually exclusive groups: the labour force (employed and unemployed people) and people not in the labour force.

Last job

Refers to last job less than 20 years ago.

Level of highest educational attainment

Level of highest educational attainment identifies the highest achievement a person has attained in any area of study. It is defined as the highest educational attainment a person has achieved, and is not a measurement of relative importance of different fields of study.

Level of highest non-school qualification

Non-school qualifications are awarded for educational attainments other than those of pre-primary, primary or secondary education. They include qualifications at the Postgraduate Degree level, Masters Degree level, Graduate Diploma and Graduate Certificate level, Bachelor Degree level, Advanced Diploma and Diploma level, and Certificates I, II, III and IV levels and not further defined. Non-school qualifications may be attained concurrently with school qualifications.

Looking for work with more hours

Refers to persons who indicated that they had done something in the last four weeks to obtain more hours of work.

Main English-speaking countries

The list of Main English Speaking Countries provided here is not an attempt to classify countries on the basis of whether or not English is the predominant or official language of each country. It is a list of the main countries from which Australia receives, or has received,

significant numbers of overseas settlers who are likely to speak English. These countries comprise the United Kingdom, the Republic of Ireland, New Zealand, Canada, South Africa, and the United States of America.

Main job

The job in which most hours were usually worked.

Not employed

People who are either unemployed or not in the labour force.

Occupation

An occupation relates to a collection of jobs that are sufficiently similar in their title and tasks, skill level and skill specialisation which are grouped together for the purposes of classification. In this publication, occupation is classified according to ANZSCO - Australian and New Zealand Standard Classification of Occupations, 2013, Version 1.2 (cat. no. 1220.0).

Owner managers

People who work in their own business, with or without employees, whether or not the business is of limited liability.

Owner managers of incorporated enterprises

People who work in their own incorporated enterprise, that is, a business entity which is registered as a separate legal entity to its members or owners (also known as a limited liability company).

Owner managers of unincorporated enterprises

People who operate their own unincorporated enterprise, that is, a business entity in which the owner and the business are legally inseparable, so that the owner is liable for any business debts that are incurred. Includes those engaged independently in a trade or profession.

Part-time workers (usual)

Employed people who usually worked less than 35 hours a week (in all jobs).

Persons in the labour force

People who were classified as being in the labour force, that is, either employed or unemployed.

Persons not in the labour force

People who were not classified as employed or unemployed.

Preferred to work more hours

Employed people who usually work 0–34 hours each week and would prefer to work more hours than they usually work.

Reference week

The week preceding the week in which the interview was conducted.

Relationship in household

The relationship of people who live in the same household.

Status in employment

Employed people classified according to whether they were employees, employers, own account workers, or contributing family workers.

Time since last job

The elapsed time since ceasing last job.

Took inactive steps

People who did not take active steps to look for work (see actively looking for work). Includes only looked in newspapers.

Unemployed

People who were not employed during the reference week, and:

- had actively looked for full-time or part-time work at any time in the four weeks up to the end of the reference week and were available for work in the reference week; or
- were waiting to start a new job within four weeks from the end of the reference week and could have started in the reference week if the job had been available then.

Unincorporated enterprise

A business entity in which the owner and the business are legally inseparable, so that the owner is liable for any business debts that are incurred.

Unpaid activities

Includes caring for own children or other people's children including grandchildren. Also includes caring for elderly or someone with long-term illness or disability or undertaking unpaid voluntary work. Respondents were asked whether they had undertaken any of these activities in the last four weeks.

Usual hours worked

The hours usually worked per week by an employed person.

Wanted a paid job

People who are not in the labour force and would like a paid job of any kind. Includes people who said 'depends'.

Wanted more hours

See 'Preferred to work more hours'.

Abbreviations

'000	thousand
ABS	Australian Bureau of Statistics
ANZSCO	Australian and New Zealand Standard Classification of Occupations
ANZSIC	Australian and New Zealand Standard Industrial Classification
ASCED	Australian Standard Classification of Education
ASCO	Australian Standard Classification of Occupations
LFS	Labour Force Survey
MPHS	Multipurpose Household Survey
MPS	Monthly Population Survey
OMIE	owner manager of incorporated enterprise
RSE	relative standard error
SACC	Standard Australian Classification of Countries
SE	standard error

Classification of Education (Appendix) (Appendix)

APPENDIX CLASSIFICATION OF EDUCATION

In 2001, the ABS Classification of Qualifications (ABSCQ) (cat. no. 1262.0) was replaced by the Australian Standard Classification of Education (ASCED) (cat. no. 1272.0). The ASCED is a national standard classification which can be applied to all sectors of the Australian education system including schools, vocational education and training and higher education. ASCED replaced a number of classifications previously used in administrative and statistical systems, including the ABSCQ. The ASCED comprises two classifications: Level of Education and Field of Education.

Level of Highest Educational Attainment can be derived from information on Highest Year of School Completed and Level of Highest Non-school Qualification. The derivation process determines which of the 'non-school' or 'school' attainments will be regarded as the highest. Usually the higher ranking attainment will be self-evident, but in some cases some Secondary Education is regarded, for the purposes of obtaining a single measure, as higher than some Certificate level attainments.

The following decision table is used to determine which of the responses to questions on Highest Year of School Completed (coded to ASCED Broad Level 6) and Level of Highest Non-school Qualification (coded to ASCED Broad Level 5) will be regarded as the highest. It is emphasised that this table was designed for the purpose of obtaining a single value for the output variable Level of Highest Educational Attainment and is not intended to convey any other order.

Decision Table: Level of Highest Educational Attainment							
ASCED LEVEL OF EDUCATION CODES	Certificate n.f.d. (500)	Certificate III or IV n.f.d. (510)	Certificate IV (511)	Certificate III (514)	Certificate I or II n.f.d. (520)	Certificate II (521)	Certificate I (524)
Secondary Education n.f.d. (600)	Certificate n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I
Senior Secondary Education n.f.d. (610)	Senior Secondary n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Senior Secondary n.f.d.	Senior Secondary n.f.d.	Senior Secondary n.f.d.
Year 12 (611)	Year 12	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Year 12	Year 12	Year 12
Year 11 (613)	Year 11	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Year 11	Year 11	Year 11
Junior Secondary Education n.f.d. (620)	Certificate n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I
Year 10 (621)	Year 10	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Year 10	Certificate II	Year 10
Year 9 (622)	Certificate n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I
Year 8 (623)	Certificate n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I
Year 7 (624)	Certificate n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I

The decision table is used to rank the information provided in a survey about the qualifications and attainments of a single individual. It does not represent any basis for comparison between differing qualifications. For example, a person whose Highest Year of School Completed was Year 12, and whose Level of Highest Non-school Qualification was a Certificate III, would have those responses crosschecked on the decision table and would as a result have their Level of Highest Educational Attainment output as Certificate III. However, if the same person answered 'Certificate' to the highest non-school qualification question, without offering any further detail, it would be crosschecked against Year 12 on the decision table as 'Certificate not further defined'. The output would then be 'Year 12'. The decision table, therefore, does not necessarily imply that one qualification is 'higher' than the other.

Populations (Appendix) (Appendix)

APPENDIX POPULATIONS

DATA AVAILABLE ON REQUEST

The ABS has a range of data available on request from the Barriers and Incentives to Labour Force Participation topic. This section lists the populations which are used in the publication. Full details of the data items are available on the ABS website in an Excel spreadsheet, under the Downloads section (B&I and R&RI 2012–13 Data Items List).

The population(s) for a particular data item refers to the people in the survey to whom the data relates. Where alternative output categories are available for the same data item, these are shown and the data item name is followed by a bracketed numeral (e.g. country of birth

(2)).

For more information about ABS data available on request, contact National Information and Referral Service in Canberra on 1300 135 070 or via email to <client.services@abs.gov.au> or contact Labour Market Statistics Section on (02) 62527206 or via email to <labour.statistics@abs.gov.au>.

Population 1

All persons aged 18 years and over

Population 2

Employed persons

Population 3

Unemployed persons¹

Population 4

Persons not in the labour force

Population 5

Persons not in the labour force who wanted a paid job

Population 6

Persons who were not in the labour force, wanted a paid job but were not available to start within four weeks

Population 7

Persons who were not in the labour force, wanted a paid job, were available to start within four weeks, but were not actively looking for a job

Population 8

Persons who were not in the labour force, wanted a paid job, were available to start within four weeks, and were actively looking for a job

Population 9

Persons who were not in the labour force and did not want a paid job or did not know

Population 9A

Persons aged 18–75 years, who were not in the labour force, excluding those permanently unable to work and permanently retired from the labour force

Population 10

Persons who usually worked 0–34 hours per week in all jobs

Population 11

Persons who usually work 0–34 hours, and preferred to work more hours

Population 12

Persons who usually work 0–34 hours, preferred to work more hours, but were not available to start within four weeks

Population 13

Persons who usually work 0–34 hours, preferred to work more hours, were available to start within four weeks, but were not looking for work with more hours

Population 14

Persons who usually work 0–34 hours, preferred to work more hours, were available to start within four weeks, and were looking for work with more hours

Population 15

Persons who usually work 0–34 hours, and did not prefer to work more hours

Population 15A

Persons aged 18–75 years, who usually work 0–34 hours per week in all jobs

END NOTE

1. There are no unemployed persons aged over 75 years.

Quality Declaration

QUALITY DECLARATION – SUMMARY (B&I)

INSTITUTIONAL ENVIRONMENT

For information on the institutional environment of the Australian Bureau of Statistics (ABS), including the legislative obligations of the ABS, financing and governance arrangements, and mechanisms for scrutiny of ABS operations, please see ABS Institutional Environment.

RELEVANCE

The Barriers and Incentives to Labour Force Participation survey provides data on people aged 18 years and over who are either not employed or work less than 35 hours. The Barriers and Incentives to Labour Force Participation topic is designed to bring various aspects of factors which influence labour force participation into one data source for comparison. The survey provides information on the potential labour force and what is preventing these people finding or taking up (more) work. The related supplementary surveys of Persons not in the labour force, Australia (cat. no. 6220.0), Underemployed Workers, Australia (cat. no. 6265.0) and Job Search Experience, Australia (cat. no. 6222.0)

offer more detailed information on the various populations.

Full details of the data items are available on the ABS website in an Excel spreadsheet, under the Downloads section (B&I and R&RI 2012–13 Data Items List).

TIMELINESS

The Barriers and Incentives to Labour Force Participation survey is collected biennially, and was first conducted in 2004–05. The most recent Barriers and Incentives to Labour Force Participation survey was conducted throughout Australia during the 2012-13 financial year. It was a component of the 2012-13 Multipurpose Household Survey (MPHS), collected as a supplement to the Australian Bureau of Statistics (ABS) Labour Force Survey (LFS). Results from the survey are released approximately six months after the completion of enumeration in the publication Barriers and Incentives to Labour Force Participation (cat. no. 6239.0).

ACCURACY

The number of completed interviews (after taking into account scope and coverage exclusions) for the Barriers and Incentives to Labour Force Participation survey was 8,200. The response rate was approximately 78% after taking the exclusions into account. See the Explanatory Notes (paragraph 10) for more information.

Estimates from the survey are subject to sampling and non-sampling errors.

The MPHS was designed primarily to provide estimates at the Australia level. Broad estimates are available for states and territories, though users should exercise caution when using estimates at this level because of the presence of high sampling errors. RSEs for all estimates in the publication are available on the ABS website. As a guide, estimates and RSEs for Table 2 are presented in the Technical note.

COHERENCE

For the 2012–13 survey, the scope of the survey was changed to include employed people who were working less than 35 hours, in addition to those not employed. For previous surveys, only employed people who worked less than 16 hours were included in the survey.

From 2012-13, the survey now includes people living in very remote parts of Australia but excludes people living in Indigenous communities in very remote parts of Australia.

The 2012–13 survey included questions on incentives to join or increase participation in the labour force. Some enhancements were made to these questions since they were last included in the 2008–09 survey.

For the 2012–13 survey, the new items satisfaction with current hours worked and satisfaction with current work arrangements were included and have been shown in this publication. Data is also available for the other new items, preferred number of hours per week for the unemployed and long-term health conditions.

The related supplementary surveys of Persons not in the labour force, Australia (cat. no. 6220.0), Underemployed Workers, Australia (cat. no. 6265.0) and Job Search Experience, Australia (cat. no. 6222.0) offer more detailed information on the various populations. Data from these supplementary surveys are not directly comparable with data from Barriers and Incentives to Labour Force Participation as there are differences in scope, collection methodology and sample design (including sample size). For example, the three supplementary surveys are conducted in a particular month each year, whereas Barriers and Incentives to Labour Force Participation data are usually collected over the 12 months

of a financial year (for 2004-05, the survey was conducted over 11 months). Information for the supplementary surveys is collected using the Any Responsible Adult methodology, whereas for the Barriers and Incentives topic, a randomly selected respondent is personally interviewed. For more information see chapters 21 and 22 of Labour Statistics: Concepts, Sources and Methods (cat. no. 6102.0.55.001).

The 2012–13 survey has been weighted using the latest estimates of the population, based on quarterly Estimated Resident Population, as standard. While Labour Force survey benchmarks are revised every 5 years, to take into account the outcome of the 5-yearly rebasing of the Estimated Resident Population following the latest Census, the supplementary surveys and multi-purpose household surveys (from which the statistics in this publication are taken) are not. Small differences will therefore exist between the civilian population aged 15 years and over reflected in the Labour Force survey and other labour household surveys estimates, as well as over time (eg. between the 2010-11 and 2012-13 Barriers & Incentives to Labour Force Participation surveys).

INTERPRETABILITY

The Barriers and Incentives to Labour Force Participation publication contains detailed Explanatory Notes, Technical Notes and a Glossary that provide information on the terminology, classifications and other technical aspects associated with these statistics.

Seasonally adjusted and trend estimates are not produced. The estimates are based on information collected over the financial year. However, seasonal weighting is not undertaken.

Further commentary is often available through articles and data published in other ABS products, including:

Australian Labour Market Statistics (cat. no. 6105.0).

Australian Social Trends (cat. no. 4102.0) - refer to the Article archive for past articles.

Labour Statistics: Concepts, Sources and Methods (cat. no. 6102.0.55.001).

Year Book, Australia (cat. no. 1301.0) - refer to the 'Labour' chapter.

ACCESSIBILITY

In addition to the PDF publication, the tables and associated RSEs will be available in spreadsheet form on the website.

Data is available on request. Note that detailed data can be subject to high relative standard errors and, in some cases, may result in data being confidentialised.

For 2010–11, a microdata data file is available to via TableBuilder. This replaced the Confidentialised Unit Record File (CURF) that was created for 2008–09 MPHS and general MPHS CURFs before then.

For further information about these or related statistics, contact the National Information and referral centre on 1300 135 070 or Labour Market Statistics Section in Canberra on (02) 6252 7206, or by email to <labour.statistics@abs.gov.au>.

Data Quality (Technical Note)

TECHNICAL NOTE DATA QUALITY

INTRODUCTION

1 Since the estimates in this publication are based on information obtained from occupants of a sample of dwellings, they are subject to sampling variability. That is, they may differ from those estimates that would have been produced if all dwellings had been included in the survey. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample of dwellings (or occupants) was included. There are about two chances in three (67%) that a sample estimate will differ by less than one SE from the number that would have been obtained if all dwellings had been included, and about 19 chances in 20 (95%) that the difference will be less than two SEs.

2 Another measure of the likely difference is the relative standard error (RSE), which is obtained by expressing the SE as a percentage of the estimate.

$$RSE\% = (SE/estimate) \times 100$$

3 RSEs for Barriers and Incentives estimates have been calculated using the Jackknife method of variance estimation. This process involves the calculation of 30 'replicate' estimates based on 30 different sub-samples of the original sample. The variability of estimates obtained from these sub-samples is used to estimate the sample variability surrounding the main estimate.

4 Limited publication space does not allow for the separate indication of the SEs and/or RSEs of all the estimates in this publication. However, RSEs for all these estimates are available free-of-charge on the ABS web site <www.abs.gov.au>, released in spreadsheet format from the Downloads tab for this publication. As a guide, the population estimates and RSEs for selected data from table 2 are presented at a table in this Technical Note.

5 In the tables in this publication, only estimates (numbers, percentages, means and medians) with RSEs less than 25% are considered sufficiently reliable for most purposes. However, estimates with larger RSEs have been included and are preceded by an asterisk (e.g. *13.5) to indicate they are subject to high SEs and should be used with caution. Estimates with RSEs greater than 50% are preceded by a double asterisk (e.g. **2.1) to indicate that they are considered too unreliable for general use.

CALCULATION OF STANDARD ERROR AND RELATIVE STANDARD ERROR

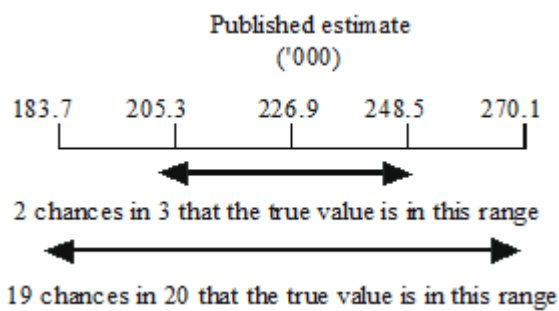
6 RSEs are routinely presented as the measure of sampling error in this publication and related products. SEs can be calculated using the estimates (counts or means) and the corresponding RSEs.

7 An example of the calculation of the SE from an RSE follows. The table shows that the estimated number of males aged 18–24 years who did not prefer to work more hours is 226,900, and the RSE for this estimate was 9.5%. The SE is:

$$\begin{aligned} SE \text{ of estimate} &= (RSE / 100) \times \text{estimate} \\ &= 0.095 \times 226,900 \\ &= 21,600 \text{ (rounded to the nearest 100)} \end{aligned}$$

8 Therefore, there are about two chances in three that the value that would have been

produced if all dwellings had been included in the survey would fall within the range 205,300 to 248,500 and about 19 chances in 20 that the value would fall within the range 183,700 to 270,100. This example is illustrated in the following diagram.



Proportions and percentages

9 Proportions and percentages formed from the ratio of two estimates are also subject to sampling errors. The size of the error depends on the accuracy of both the numerator and the denominator. A formula to approximate the RSEs of proportions not provided in the spreadsheets is given below. This formula is only valid when x is a subset of y.

$$RSE\left(\frac{x}{y}\right) = \sqrt{[RSE(x)]^2 - [RSE(y)]^2}$$

10 Considering the table, of the 1,021,300 males who worked 0–34 hours each week, 692,400 or 67.8% did not prefer to work more hours. The RSE of 692,400 is 4.6% and the RSE for 1,021,300 is 3.6%. Applying the above formula, the RSE for the proportion of males who did not prefer to work more hours is:

$$RSE = \sqrt{(4.6)^2 - (3.6)^2} = 2.9\%$$

11 Therefore, the SE for the proportion of males who worked 0–34 hours per week who did not prefer more hours was 2.0 percentage points (= (67.8/100) x 2.9). Therefore, there are about two chances in three that the proportion of males who worked 0–34 hours per week who did not prefer more hours is between 65.8% and 69.8%, and 19 chances in 20 that the proportion was within the range 63.8% to 71.8%.

Sums or Differences between estimates

12 Published estimates may also be used to calculate the sum of, or difference between, two survey estimates (of numbers, means or percentages) where these are not provided in the spreadsheets. Such estimates are also subject to sampling error.

13 The sampling error of the difference between two estimates depends on their SEs and the relationship (correlation) between them. An approximate SE of the difference between two estimates (x–y) may be calculated by the following formula:

$$SE(x-y) = \sqrt{[SE(x)]^2 + [SE(y)]^2}$$

14 The sampling error of the sum of two estimates is calculated in a similar way. An approximate SE of the sum of two estimates (x+y) may be calculated by the following formula:

$$SE(x+y) = \sqrt{[SE(x)]^2 + [SE(y)]^2}$$

15 An example follows. From paragraph 7 the estimated number of males aged 18–24 years

who did not prefer to work more hours was 226,900 and the SE was 21,600. From the table, the estimate of males aged 25–34 years who did not prefer to work more hours was 78,600, and the SE was 11,554. The estimate of males aged 18–34 years who preferred not to work more hours is:

$$226,900 + 78,600 = 305,500$$

16 The SE of the estimate of males aged 18–34 years who did not prefer to work more hours is:

$$SE = \sqrt{(21,600)^2 + (11,554)^2} = 24,500(\text{rounded})$$

17 Therefore, there are about two chances in three that the value that would have been produced if all dwellings had been included in the survey would fall within the range 281,000 to 330,000 and about 19 chances in 20 that the value would fall within the range 256,500 to 354,500.

18 While these formulae will only be exact for sums of, or differences between, separate and uncorrelated characteristics or subpopulations, it is expected to provide a good approximation for all sums or differences likely to be of interest in this publication.

SELECTED ESTIMATES AND RSES

PERSONS AGED 18 YEARS AND OVER, USUALLY WORKED 0–34 HOURS PER WEEK OR NOT EMPLOYED, Whether wanted a job or more hours—By age

PERSONS WHO USUALLY WORKED 0–34 HOURS PER WEEK				PERSONS NOT IN THE LABOUR FORCE			
	Preferred to work more hours	Did not prefer to work more hours (a)	TotalUnemployed	Wanted a job (b)	Did not want a job (a)	Total	
ESTIMATES ('000)							
Males							
18–24	111.8	226.9	338.6	95.8	88.3	76.3	164.6
25–34	57.4	78.6	136.0	57.3	66.4	55.1	121.5
35–44	41.5	64.6	106.2	50.2	55.1	44.4	99.5
45–54	62.5	76.1	138.6	44.6	42.5	106.3	148.9
55–64	47.6	141.5	189.1	37.1	82.2	223.5	305.8
65 and over	**8.2	104.6	112.8	**5.5	107.7	1 098.6	1 206.3
<i>Total</i>	328.9	692.4	1 021.3	290.4	442.3	1 604.3	2 046.6
Females							
18–24	146.6	282.0	428.6	57.6	134.6	119.8	254.4
25–34	109.2	281.4	390.7	52.3	152.2	267.6	419.8
35–44	118.0	475.0	593.0	48.2	130.6	216.4	347.0
45–54	111.0	395.1	506.1	54.8	132.3	200.3	332.6
55–64	80.0	280.1	360.1	25.1	117.8	447.3	565.0

65 and over	*7.2	87.4	94.6	**2.0	103.1	1 391.0	1 494.1
Total	571.9	1 801.1	2 373.0	239.9	770.5	2 642.4	3 412.9
Persons							
18–24	258.4	508.9	767.2	153.3	222.8	196.2	419.0
25–34	166.6	360.0	526.6	109.6	218.6	322.7	541.3
35–44	159.5	539.7	699.2	98.4	185.7	260.8	446.5
45–54	173.5	471.2	644.7	99.4	174.8	306.7	481.5
55–64	127.5	421.6	549.2	62.1	200.0	670.8	870.8
65 and over	*15.4	192.0	207.4	**7.5	210.9	2 489.6	2 700.5
Total	900.8	2 493.5	3 394.3	530.3	1 212.8	4 246.8	5 459.6
RSES OF ESTIMATES (%)							

Males							
18–24	12.1	9.5	6.2	14.8	16.2	16.1	11.5
25–34	16.6	14.7	11.2	17.0	19.6	20.4	12.0
35–44	16.8	14.5	11.3	17.3	15.1	20.9	12.6
45–54	15.9	14.1	10.0	19.4	19.4	12.2	9.1
55–64	22.5	7.5	5.9	24.6	16.2	8.8	6.5
65 and over	50.5	10.4	10.8	59.9	10.6	2.0	1.5
Total	9.0	4.6	3.6	9.0	8.3	2.6	2.5
Females							
18–24	14.4	8.9	7.2	19.6	12.6	13.6	8.8
25–34	11.0	6.1	6.3	17.6	11.7	8.7	5.4
35–44	9.6	4.7	3.9	11.5	10.1	8.5	6.5
45–54	10.7	5.3	3.8	14.5	8.0	9.0	6.2
55–64	14.6	6.9	6.0	19.7	13.4	4.9	4.6
65 and over	31.5	12.2	11.1	73.7	11.3	1.0	0.7
Total	5.2	2.3	2.3	8.0	4.9	1.8	1.4
Persons							
18–24	9.6	6.7	4.7	12.2	9.7	9.5	6.7
25–34	10.3	6.2	6.1	12.7	10.1	7.4	4.9
35–44	8.5	3.9	3.4	10.0	8.6	7.6	5.9
45–54	8.9	4.8	3.8	12.5	7.3	7.9	4.8
55–64	14.1	6.1	4.9	16.2	12.0	4.5	3.7
65 and over	29.9	8.2	7.8	51.5	8.6	1.1	0.8
Total	4.9	2.3	2.1	5.7	5.1	1.5	1.3

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(a) Includes people who reported 'Did not know'.

(b) Includes people who reported 'Maybe/it depends'.